



# Common Core State Standards Initiative

## English/Language Arts K-12 Mathematics K-12

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# Common Core State Standards Initiative (CCSSI)

- Led by the Council of Chief State School Officers and the National Governors Association
  - Achieve
  - ACT
  - College Board
- Montana Joined 48 Other States



# Common Core State Standards Initiative (CCSSI)

- May 2009, State Superintendent Juneau and Governor Schweitzer signed Memorandum of Agreement

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- Agree to participate in development of Common Core Standards
- Does not include a pledge to adopt the Common Core Standards



# Common Core State Standards Initiative (CCSSI)

## Expectations of the Common Core Standards

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- Fewer, clearer, more rigorous
- Aligned with college and work expectations
- Internationally benchmarked
- Evidence and/or research based



# Common Core State Standards Initiative (CCSSI)

- **Process to Adopt**

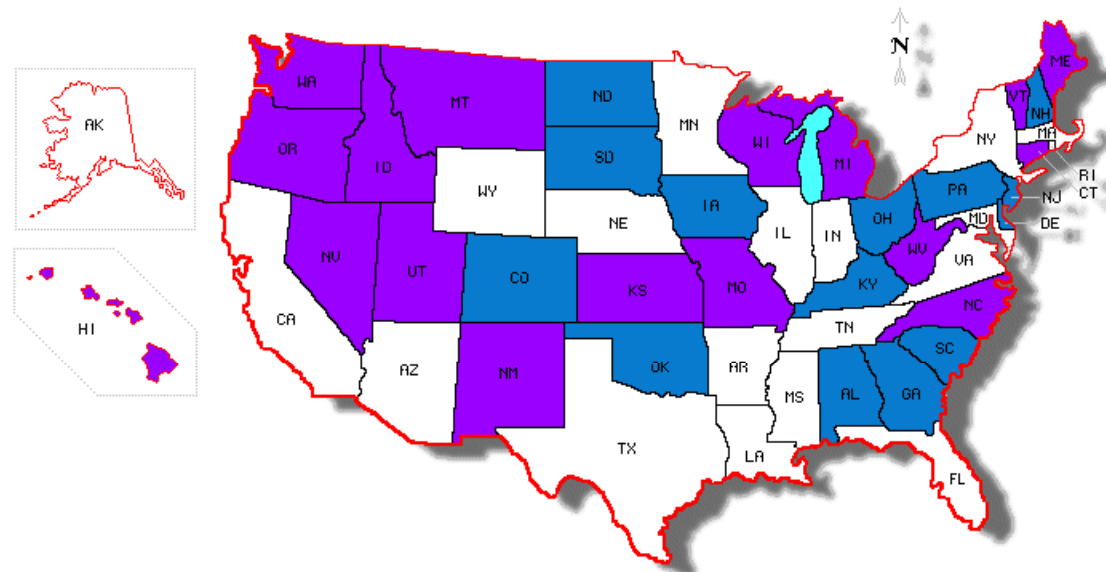
- Recommendation of State Superintendent
- Montana Board of Public Education action
- Timeline

- **Implications of Initiative**

- Curriculum
- Instruction
- Assessment

# SMARTER Balanced Assessment Consortium

- - Governing
- - Advisory



NOTES:  
The State of Washington is a Governing State in addition to serving in the unique role of Lead Procurement State/Lead State for the Consortium.



# Common Core State Standards Initiative (CCSSI)

- States must adopt Common Core Standards word for word
- States may add to Common Core Standards



# Alignment of Montana Content Standards and Common Core

- External Content Expert Common Core Alignment
- Achieve Gap Analysis
- Surveys of Enacted Curriculum





# Mathematics Content

Montana

Percentage of Overall Mathematics Instructional Time

Coarse Grain Alignment: 0.52

Administration Year: 2010

Administration Year: 2010

Viewing: MT Stnds (09) Gr. 4 Data

Viewing: CCSS Gr. 4 Data

Data Cut: All Data

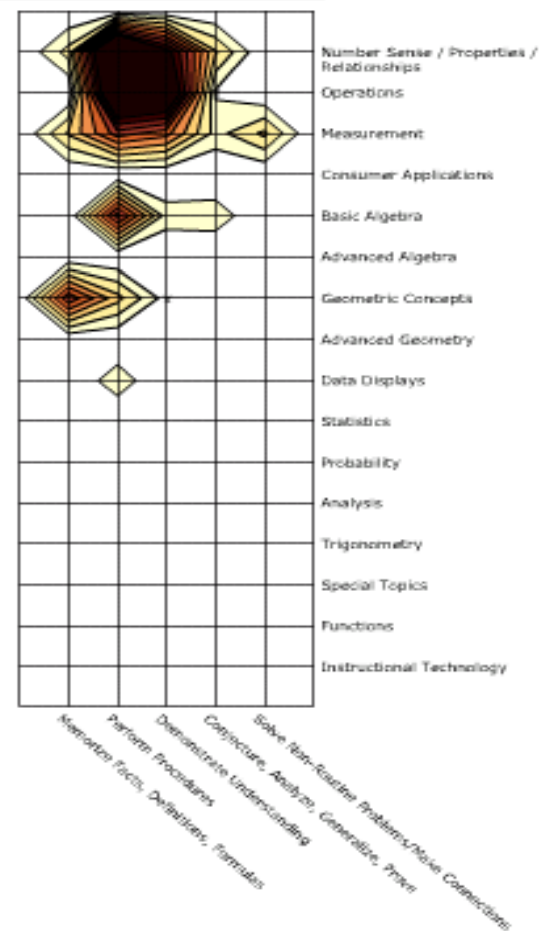
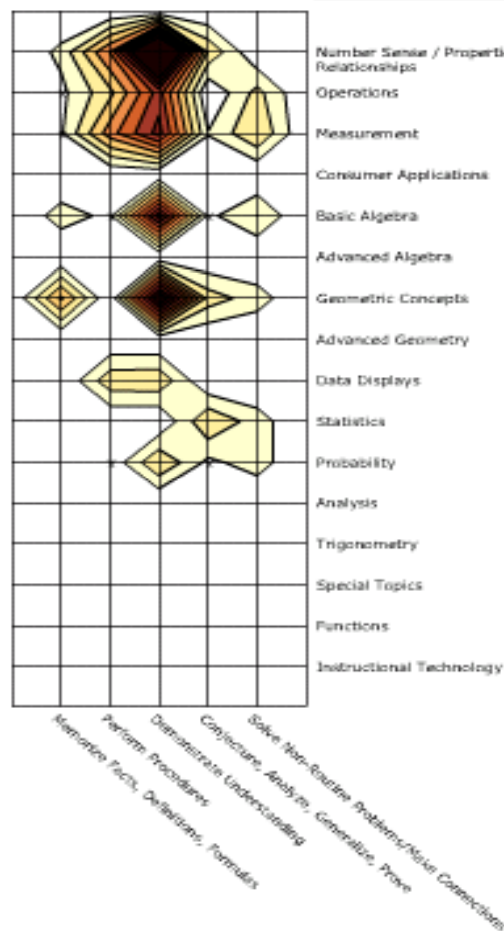
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Update Maps



# Montana K-12 Communication Arts Content Standards and Benchmarks



**[opi.mt.gov](http://opi.mt.gov)**

# Communication Arts Reading Content Standard 2

Students read by applying foundational skills and strategies to comprehend, interpret, analyze, and evaluate texts.

End of Grade 4	End of	Standard
2.1 decode unknown words combining the elements of phonics, use of word parts, and context clues	2.1 apply knowledge of word and sentence structure, analysis of word parts and context to decode unknown words	2.1 select and apply knowledge of syntax clues, word origins, roots and affixes, and context to decode unknown words
2.2 develop and apply general and content specific vocabulary through the use of context clues, analysis of word parts, and reference sources	2.2 expand and apply general and specialized vocabulary through the use of context clues, analysis of word parts, and reference sources	2.2 expand and utilize general and specialized vocabulary through the use of context clues, analysis of word origins, and reference sources

# Communication Arts Reading Content Standard

Students read by applying foundational skills and strategies to comprehend, interpret, analyze, and evaluate texts.

Grade Level	Essential Learning Expectation	Essential Vocabulary
Kindergarten	A. Make predictions about stories using cover and book illustrations B. Make predictions during read alouds	Predict, illustration
Grade 1	A. Make predictions using cover and illustrations B. Make predictions using prior knowledge C. make predictions using text vocabulary	Predictions

ELE

<http://www.corestandards.org/>



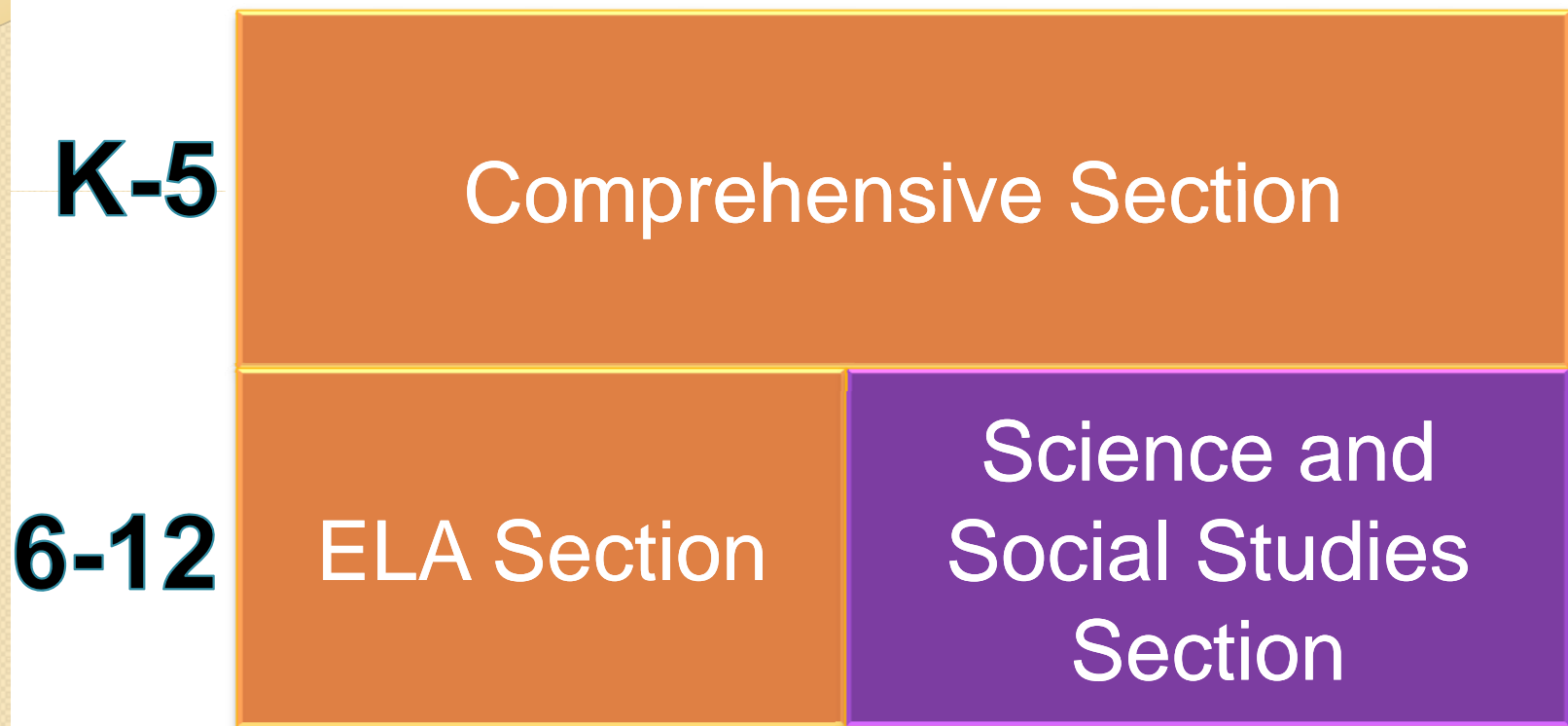
# **COMMON CORE**

## **STATE STANDARDS INITIATIVE**

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**PREPARING AMERICA'S STUDENTS FOR COLLEGE & CAREER**

# ELA Common Core Structure





# English/Language Arts Standards

- Reading for Literature
  - Reading for Informational Text
  - Reading: Foundational Skills
  - Writing
  - Speaking and Listening
  - Language
- 
- Literacy in History/Social Studies & Science

## College and Career Readiness Anchor Standards for Reading

The K–5 standards on the following pages define what students should understand and be able to do by the end of each grade. They correspond to the College and Career Readiness (CCR) anchor standards below by number. The CCR and grade-specific standards are necessary complements—the former providing broad standards, the latter providing additional specificity—that together define the skills and understandings that all students must demonstrate.

### Key Ideas and Details

1. Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
2. Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.
3. Analyze how and why individuals, events, and ideas develop and interact over the course of a text.

### Craft and Structure

4. Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.
5. Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole.
6. Assess how point of view or purpose shapes the content and style of a text.

### Integration of Knowledge and Ideas

7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.\*
8. Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.
9. Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.

### Range of Reading and Level of Text Complexity

10. Read and comprehend complex literary and informational texts independently and proficiently.

### Note on range and content of student reading

*To build a foundation for college and career readiness, students must read widely and deeply from among a broad range of high-quality, increasingly challenging literary and informational texts. Through extensive reading of stories, dramas, poems, and myths from diverse cultures and different time periods, students gain literary and cultural knowledge as well as familiarity with various text structures and elements. By reading texts in history/social studies, science, and other disciplines, students build a foundation of knowledge in these fields that will also give them the background to be better readers in all content areas. Students can only gain this foundation when the curriculum is intentionally and coherently structured to develop rich content knowledge within and across grades. Students also acquire the habits of reading independently and closely, which are essential to their future success.*

\*Please see "Research to Build and Present Knowledge" in Writing and "Comprehension and Collaboration" in Speaking and Listening for additional standards relevant to gathering, assessing, and applying information from print and digital sources.



## Reading Standards for Literature K-5

The following standards offer a focus for instruction each year and help ensure that students gain adequate exposure to a range of texts and tasks. Rigor is also infused through the requirement that students read increasingly complex texts through the grades. *Students advancing through the grades are expected to meet each year's grade-specific standards and retain or further develop skills and understandings mastered in preceding grades.*

Kindergartners:	Grade 1 students:	Grade 2 students:
<b>Key Ideas and Details</b>		
1. With prompting and support, ask and answer questions about key details in a text.	1. Ask and answer questions about key details in a text.	1. Ask and answer questions about such questions as who, what, why, and how to demonstrate understanding of key details in a text.
2. With prompting and support, retell familiar stories, including key details.	2. Retell stories, including key details, and demonstrate understanding of their central message or lesson.	2. Retell stories, including fables and folktales and myths and legends from a variety of cultures, and determine their central message or moral.
3. With prompting and support, identify characters, settings, and major events in a story.	3. Describe characters, settings, and major events in a story, using key details.	3. Describe how characters in a story respond to major events and challenges.
<b>Craft and Structure</b>		
4. Ask and answer questions about unknown words in a text.	4. Identify words and phrases in stories or poems that suggest feelings or appeal to the senses.	4. Describe how words and phrases (e.g., regular patterns of sound, alliteration, rhymes, repeated lines) supply major themes, advance the plot, and meaning in a story, poem, or song.
5. Recognize common types of texts (e.g., storybooks, poems).	5. Explain major differences between books that tell stories and books that give information, drawing on what one reads.	5. Describe the structure of a story, including describing how the plot unfolds and how the story is organized (e.g., by the introduction of characters, by the setting, by the time of day).
6. With prompting and support, name the author and illustrator of a story and define the role of each in telling the story.	6. Identify who is telling the story at various points in a text.	6. Analyze how an author uses words and images to create in the reader a sense of the characters, setting, or events.
<b>Integration of Knowledge and Ideas</b>		
7. With prompting and support, describe the relationship between illustrations and the story in which they appear (e.g., what moment in a story an illustration depicts).	7. Use illustrations and details in a story to describe its characters, setting, or events.	7. Use information gained from illustrations or media in a story to describe it and support their understanding.
8. (Not applicable to literature)	8. (Not applicable to literature)	8. (Not applicable to literature)
9. With prompting and support, compare and contrast the adventures and experiences of characters in familiar stories.	9. Compare and contrast the adventures and experiences of characters in stories.	9. Compare and contrast the adventures and experiences of characters in stories, making distinctions between the different versions of a story and making connections between the different versions of a story.
<b>Range of Reading and Level of Text Complexity</b>		
10. Actively engage in group reading activities with purpose and understanding.	10. With prompting and support, read prose and poetry of appropriate complexity for grade 1.	10. By the end of the year, read and comprehend literature, including stories and poetry, in the grades 2-3 text complexity band proficiently with scaffolding as needed at the high end of the range.

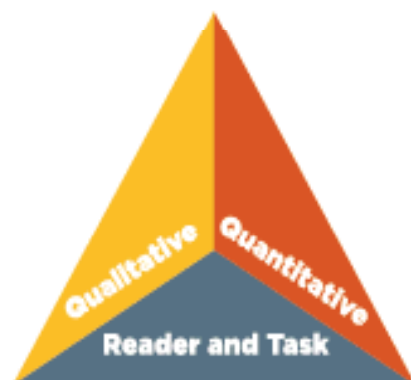
Strand

Topics

Standard Statement

## Standard 10: Range, Quality, and Complexity of Student Reading K-5

### Measuring Text Complexity: Three Factors



**Qualitative evaluation of the text:** Levels of meaning, structure, language conventionality and clarity, and knowledge demands

**Quantitative evaluation of the text:** Readability measures and other scores of text complexity

**Matching reader to text and task:** Reader variables (such as motivation, knowledge, and experiences) and task variables (such as purpose and the complexity generated by the task assigned and the questions posed)

**Note:** More detailed information on text complexity and how it is measured is contained in Appendix A.

### Range of Text Types for K-5

Students in K-5 apply the Reading standards to the following range of text types, with texts selected from a broad range of cultures and periods.

Literature			Informational Text
Stories	Dramas	Poetry	Literary Nonfiction and Historical, Scientific, and Technical Texts
Includes children's adventure stories, folktales, legends, fables, fantasy, realistic fiction, and myth	Includes staged dialogue and brief familiar scenes	Includes nursery rhymes and the subgenres of the narrative poem, limerick, and free verse poem	Includes biographies and autobiographies; books about history, social studies, science, and the arts; technical texts, including directions, forms, and information displayed in graphs, charts, or maps; and digital sources on a range of topics

## Language Progressive Skills, by Grade

The following skills, marked with an asterisk (\*) in Language standards 1–3, are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking.

Standard	Grade(s)							
	3	4	5	6	7	8	9-10	11-12
L.3.1f. Ensure subject-verb and pronoun-antecedent agreement.								
L.3.3a. Choose words and phrases for effect.								
L.4.1f. Produce complete sentences, recognizing and correcting inappropriate fragments and run-ons.								
L.4.1g. Correctly use frequently confused words (e.g., <i>to/too/two</i> ; <i>there/their</i> ).								
L.4.3a. Choose words and phrases to convey ideas precisely.*								
L.4.3b. Choose punctuation for effect.								
L.5.1d. Recognize and correct inappropriate shifts in verb tense.								
L.5.2a. Use punctuation to separate items in a series.*								
L.6.1c. Recognize and correct inappropriate shifts in pronoun number and person.								
L.6.1d. Recognize and correct vague pronouns (i.e., ones with unclear or ambiguous antecedents).								
L.6.1e. Recognize variations from standard English in their own and others' writing and speaking, and identify and use strategies to improve expression in conventional language.								
L.6.2a. Use punctuation (commas, parentheses, dashes) to set off nonrestrictive/parenthetical elements.								
L.6.3a. Vary sentence patterns for meaning, reader/listener interest, and style.*								
L.6.3b. Maintain consistency in style and tone.								
L.7.1c. Place phrases and clauses within a sentence, recognizing and correcting misplaced and dangling modifiers.								
L.7.3a. Choose language that expresses ideas precisely and concisely, recognizing and eliminating wordiness and redundancy.								
L.8.1d. Recognize and correct inappropriate shifts in verb voice and mood.								
L.9-10.1a. Use parallel structure.								

## Texts Illustrating the Complexity, Quality, and Range of Student Reading K-5

	Literature: Stories, Drama, Poetry	Informational Texts: Literary Nonfiction and Historical, Scientific, and Technical Texts
K*	<ul style="list-style-type: none"> <li>▪ <i>Over in the Meadow</i> by John Langstaff (traditional) (c1800)*</li> <li>▪ <i>A Boy, a Dog, and a Frog</i> by Mercer Mayer (1967)</li> <li>▪ <i>Pancakes for Breakfast</i> by Tomie DePaola (1978)</li> <li>▪ <i>A Story, A Story</i> by Gail E. Haley (1970)*</li> <li>▪ <i>Kitten's First Full Moon</i> by Kevin Henkes (2004)*</li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>My Five Senses</i> by Alikei (1962)**</li> <li>▪ <i>Truck</i> by Donald Crews (1980)</li> <li>▪ <i>I Read Signs</i> by Tana Hoban (1987)</li> <li>▪ <i>What Do You Do With a Tail Like This?</i> by Steve Jenkins and Robin Page (2003)*</li> <li>▪ <i>Amazing Whales!</i> by Sarah L. Thomson (2005)*</li> </ul>
1*	<ul style="list-style-type: none"> <li>▪ "Mix a Pancake" by Christina G. Rossetti (1893)**</li> <li>▪ <i>Mr. Popper's Penguins</i> by Richard Atwater (1938)*</li> <li>▪ <i>Little Bear</i> by Else Holmelund Minarik, illustrated by Maurice Sendak (1957)**</li> <li>▪ <i>Frog and Toad Together</i> by Arnold Lobel (1971)**</li> <li>▪ <i>Hi! Fly Guy</i> by Tedd Arnold (2006)</li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>A Tree Is a Plant</i> by Clyde Robert Bulla, illustrated by Stacey Schuett (1960)**</li> <li>▪ <i>Starfish</i> by Edith Thacher Hurd (1962)</li> <li>▪ <i>Follow the Water from Brook to Ocean</i> by Arthur Dorros (1991)**</li> <li>▪ <i>From Seed to Pumpkin</i> by Wendy Pfeffer, illustrated by James Graham Hale (2000)*</li> <li>▪ <i>How People Learned to Fly</i> by Fran Hodgkins and True Kelley (2007)*</li> </ul>



## Reading Standards for Literacy in History/Social Studies 6–12

RH

The standards below begin at grade 6; standards for K–5 reading in history/social studies, science, and technical subjects are integrated into the K–5 Reading standards. The CCR anchor standards and high school standards in literacy work in tandem to define college and career readiness expectations—the former providing broad standards, the latter providing additional specificity.

Grades 6–8 students:	Grades 9–10 students:	Grades 11–12 students:
<b>Key Ideas and Details</b>		
1. Cite specific textual evidence to support analysis of primary and secondary sources.	1. Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information.	1. Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.
2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary of the source distinct from prior knowledge or opinions.	2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.	2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.
3. Identify key steps in a text's description of a process related to history/social studies (e.g., how a bill becomes law, how interest rates are raised or lowered).	3. Analyze in detail a series of events described in a text; determine whether earlier events caused later ones or simply preceded them.	3. Evaluate various explanations for actions or events and determine which explanation best accords with textual evidence, acknowledging where the text leaves matters uncertain.
<b>Craft and Structure</b>		
4. Determine the meaning of words and phrases as they are used in a text, including vocabulary specific to domains related to history/social studies.	4. Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social studies.	4. Determine the meaning of words and phrases as they are used in a text, including analyzing how an author uses and refines the meaning of a key term over the course of a text (e.g., how Madison defines <i>faction</i> in <i>Federalist No. 10</i> ).
5. Describe how a text presents information (e.g., sequentially, comparatively, causally).	5. Analyze how a text uses structure to emphasize key points or advance an explanation or analysis.	5. Analyze in detail how a complex primary source is structured, including how key sentences, paragraphs, and larger portions of the text contribute to the whole.
6. Identify aspects of a text that reveal an author's point of view or purpose (e.g., loaded language, inclusion or avoidance of particular facts).	6. Compare the point of view of two or more authors for how they treat the same or similar topics, including which details they include and emphasize in their respective accounts.	6. Evaluate authors' differing points of view on the same historical event or issue by assessing the authors' claims, reasoning, and evidence.
<b>Integration of Knowledge and Ideas</b>		
7. Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts.	7. Integrate quantitative or technical analysis (e.g., charts, research data) with qualitative analysis in print or digital text.	7. Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, as well as in words) in order to address a question or solve a problem.
8. Distinguish among fact, opinion, and reasoned judgment in a text.	8. Assess the extent to which the reasoning and evidence in a text support the author's claims.	8. Evaluate an author's premises, claims, and evidence by corroborating or challenging them with other information.
9. Analyze the relationship between a primary and secondary source on the same topic.	9. Compare and contrast treatments of the same topic in several primary and secondary sources.	9. Integrate information from diverse sources, both primary and secondary, into a coherent understanding of an idea or event, noting discrepancies among sources.
<b>Range of Reading and Level of Text Complexity</b>		
10. By the end of grade 8, read and comprehend history/social studies texts in the grades 6–8 text complexity band independently and proficiently.	10. By the end of grade 10, read and comprehend history/social studies texts in the grades 9–10 text complexity band independently and proficiently.	10. By the end of grade 12, read and comprehend history/social studies texts in the grades 11–CCR text complexity band independently and proficiently.

# Montana K-12 Mathematics Content Standards and Benchmarks

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**[opi.mt.gov](http://opi.mt.gov)**

# Number Sense and Operation Content Standard 1

A student, applying reasoning and problem solving, will use number sense and operations to represent numbers in multiple ways, understand relationships among numbers and number systems, make reasonable estimates, and compute fluently within a variety of relevant

cultural contexts, including those of Montana American Indians.

Standard

End of Grade 4	End of Grade 8	Upon Graduation
<b>1.1 Whole Number Relationships:</b> Demonstrate relationships among whole numbers; identify place value up to 100,000 and compare numbers (e.g., greater than, less than, and equal to).	<b>1.1 Rational Number Relationships:</b> Recognize, model, and compare different forms of integers and rational numbers including percents, fractions, decimals, and numbers using exponents and scientific notation.	<b>1.1 Quantification:</b> Use multiple notations to perform and interpret the effects of operations on very large and very small numbers with and without technology.
<b>1.2 Estimation and Operations:</b> Estimate sums, differences, products, and quotients when solving problems. Add, subtract, multiply (three-digit by two-digit factors), and divide (two-digit dividends by one-digit divisors) to solve problems. Demonstrate fluency with basic facts.	<b>1.2 Estimation and Reasonableness:</b> Select and apply appropriate estimation strategies to judge the reasonableness of solutions to problems including those computed on a calculator. Demonstrate correct use of order of operations.	<b>1.2 Estimation and Accuracy:</b> Identify situations where estimation is appropriate and determine the degree of accuracy needed for a given problem situation (and the appropriate precision in which to report answers).

Benchmarks

## 1.1. gr4 Whole Number Relationships: Demonstrate relationships among whole numbers; identify place value up to 100,000 and compare numbers (e.g., greater than, less than, and equal to).

**Benchmark**

Grade Level	Essential Learning Expectation	Essential Vocabulary
Kindergarten	A. Represent quantities with whole numbers up to 10; verbally, with manipulatives, and in writing. B. Compare and order sets of objects or numerals by both cardinal and ordinal meanings (i.e., first, second, third, last)	count, before, after, between, first, second, third, last
Grade 1	A. Compare and order numbers to 100. B. Model two-digit whole numbers in terms of tens and ones. C. Represent numbers on the number line.	tens, ones, greater than, less than, base-ten blocks, number line, counting number, order, more, fewer

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<http://www.corestandards.org/>



# **COMMON CORE**

## **STATE STANDARDS INITIATIVE**

**PREPARING AMERICA'S STUDENTS FOR COLLEGE & CAREER**



# K-12 Common Core Structure

Standards for Mathematical Practices

Understanding the Mathematics for  
each Grade Level or  
Conceptual Category

Standards, Domains, Clusters

In Grade 3, instructional time should focus on four critical areas: (1) developing understanding of multiplication and division and strategies for multiplication and division within 100; (2) developing understanding of fractions, especially unit fractions (fractions with numerator 1); (3) developing understanding of the structure of rectangular arrays and of area; and (4) describing and analyzing two-dimensional shapes.

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# Grade 3 Overview

## Operations and Algebraic Thinking

- Represent and solve problems involving multiplication and division.
- Understand properties of multiplication and the relationship between multiplication and division.
- Multiply and divide within 100.
- Solve problems involving the four operations, and identify and explain patterns in arithmetic.

## Number and Operations in Base Ten

- Use place value understanding and properties of operations to perform multi-digit arithmetic.

## Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

may sometimes be closely related.

Domain

## Number and Operations in Base Ten

3.NBT

Use place value understanding and properties of operations to perform multi-digit arithmetic.

Standard

1. Use place value understanding to round whole numbers to the nearest 10 or 100.
2. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
3. Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g.,  $9 \times 80$ ,  $5 \times 60$ ) using strategies based on place value and properties of operations.

Cluster

# Domain

## Operations and Algebraic Thinking

3.OA

### Cluster

#### Represent and solve problems involving multiplication and division.

1. Interpret products of whole numbers, e.g., interpret  $5 \times 7$  as the total number of objects in 5 groups of 7 objects each. *For example, describe a context in which a total number of objects can be expressed as  $5 \times 7$ .*
2. Interpret whole-number quotients of whole numbers, e.g., interpret  $56 \div 8$  as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. *For example, describe a context in which a number of shares or a number of groups can be expressed as  $56 \div 8$ .*
3. Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.<sup>1</sup>

### Standard

Determine the unknown whole number in a multiplication or division equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations  $8 \times 48, 5 = \square \div 3, 6 \times 6 = ?$ .*

#### Understand properties of multiplication and the relationship between multiplication and division.

5. Apply properties of operations as strategies to multiply and divide.<sup>2</sup> *Examples: If  $6 \times 4 = 24$  is known, then  $4 \times 6 = 24$  is also known. (Commutative property of multiplication.)  $3 \times 5 \times 2$  can be found by  $3 \times 5 = 15$ , then  $15 \times 2 = 30$ , or by  $5 \times 2 = 10$ , then  $3 \times 10 = 30$ . (Associative property of multiplication.) Knowing that  $6 \times 5 = 40$  and  $6 \times 3 = 18$ , ...*

# Number and Quantity Overview

## The Real Number System

- Extend the properties of exponents to rational exponents
- Use properties of rational and irrational numbers.

## Quantities

- Reason quantitatively and use units to solve problems

## The Complex Number System

- Perform arithmetic operations with complex numbers

## Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.



## The Real Number System

N-RN

**Extend the properties of exponents to rational exponents.**

1. Explain how the definition of the meaning of rational exponents follows from extending the properties of integer exponents to those values, allowing for a notation for radicals in terms of rational exponents. *For example, we define  $5^{1/3}$  to be the cube root of 5 because we want  $(5^{1/3})^3 = 5^{(1/3)3}$  to hold, so  $(5^{1/3})^3$  must equal 5.*
2. Rewrite expressions involving radicals and rational exponents using the properties of exponents.

Standard

**Use properties of rational and irrational numbers.**

3. Explain why the sum or product of two rational numbers is rational; that the sum of a rational number and an irrational number is irrational; and that the product of a nonzero rational number and an irrational number is irrational.

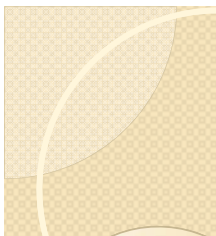
## Quantities\*

N-Q

**Reason quantitatively and use units to solve problems.**

1. Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.

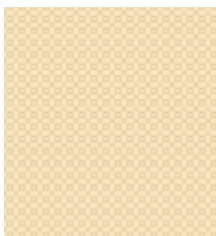


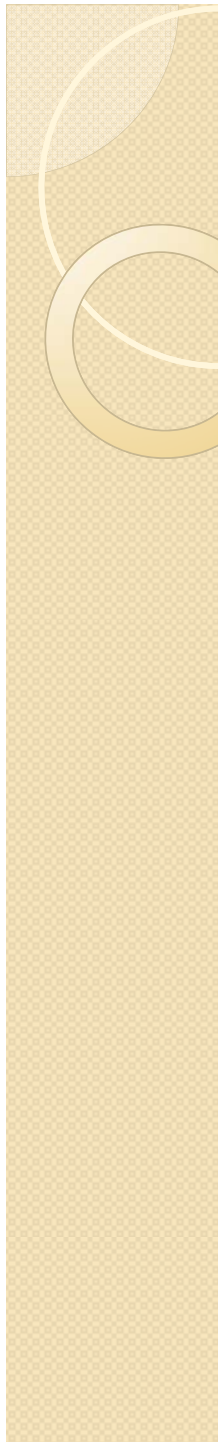


## Common Core State Standards – Mathematics

## Learning Progressions

Kindergarten	1	2	3	4	5	6	7	8	HS
<a href="#">Counting and Cardinality</a>									Number and Quantity
<a href="#">Number and Operations in Base Ten</a>						<a href="#">Ratios and Proportional Relationships</a>			
			<a href="#">Number and Operations - Fractions</a>			<a href="#">The Number System</a>			
<a href="#">Operations and Algebraic Thinking</a>						<a href="#">Expressions and Equations</a>			Algebra
								<a href="#">Functions</a>	Functions
<a href="#">Geometry</a>						<a href="#">Geometry</a>			Geometry
<a href="#">Measurement and Data</a>						<a href="#">Statistics and Probability</a>			Statistics and Probability





# Examine Documents using our Treasure Hunt



Mathematics:

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<http://www.opi.mt.gov/pdf/CCSSO/10SeptMathTreasureHunt.pdf>

English/language arts:

<http://www.opi.mt.gov/pdf/CCSSO/10SeptEnglishTreasureHunt.pdf>

# Survey

<http://keysurvey.mt.gov/survey/107148/1910/>



# Common Core State Standards Initiative (CCSSI)

## Frequently Asked Questions (FAQs)



- Dynamic document
- Covers the most frequently asked questions
- Dynamic document with updates to come
- Located at: <http://www.opi.mt.gov/pdf/ccsso/10SeptFAQ.pdf>
- Review and pose your questions

# What can you do?

- Documents located:

[http://www.opi.mt.gov/Curriculum/Index.html?gpm=1\\_7](http://www.opi.mt.gov/Curriculum/Index.html?gpm=1_7)

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<http://www.corestandards.org>

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